Sudhir Yarram

Email: sudhirya@buffalo.edu
Webpage: http://skrya.github.io

Research Interests

My research focuses on designing video perception and forecasting models for autonomous systems that will enable autonomous systems to *perceive* and *forecast* in the real world just as humans are able, and ultimately surpass humans ability to forecast.

Education

University at Buffalo, USA
Doctor of Philosophy, Computer Science and Engineering — Aug 2019 - present
Advisor: Prof. Junsong Yuan
Thesis Committee: Prof. Junsong Yuan, Prof. Chunming Qiao, Prof. Vishnu Lokhande

International Institute of Information Technology, Hyderabad India
Bachelor of Technology, Computer Science and Engineering, — Jul 2011 - Jul 2015
GPA: 8.08/10 (Overall)

Selected Work Experience

Amazon Go Team
Research Intern, with Dr. Tian Lan, Dr. Hui Liang, and David Acuna — Summer 2021
Referring Video Object Segmentation — Seattle, WA, USA

Amazon Go Team
Applied Scientist Intern, with Dr. Tian Lan and Dr. Hui Liang — Summer 2020
Domain Adaptation for Referring Video Object Segmentation — Seattle, WA, USA

Adobe Systems
Member of Technical Staff , with Vikas Jain — 2016 - 2018
Owner of the Predictive Creativity app, an animation app that simplifies the repetitive process using machine learning algorithms. — Bangalore, India

Publications

Sudhir Yarram, Junsong Yuan, "Forecasting Future Videos from Novel Views via Disentangled 3D Scene Representation", in *European Conference on Computer Vision* (**ECCV**), 2024. (**In submission**)

Sudhir Yarram, Ming Yang, Junsong Yuan, "Adversarial Structured Prediction for Domain Adaptive Semantic Segmentation", in *Machine Vision and Applications* (**MVA**), 2022. [pdf]

Jialian Wu, **Sudhir Yarram**, Hui Liang, Tian Lan, Junsong Yuan, Jayan Eledath, and Gerard Medioni, "Efficient Video Instance Segmentation via Tracklet Query and Proposal", in *IEEE Conference on Computer Vision and Pattern Recognition* (**CVPR**), 2022. [pdf]

Sudhir Yarram, Jialian Wu, Pan Ji, Yi Xu, Junsong Yuan, "Deformable VisTR : Spatio temporal deformable attention for video instance segmentation", in *IEEE International Conference on Acoustics, Speech and Signal Processing* (**ICASSP**), 2022. [pdf]

Sudhir Yarram, Ming Yang, Junsong Yuan, Chunming Qiao, "Joint Global-Local alignment for domain adaptive semantic segmentation", in *IEEE International Conference on Acoustics, Speech and Signal Processing* (**ICASSP**), 2022. [pdf]

Ashutosh Mishra*, **Sudhir Yarram***, Tarun Kalluri*, Manmohan Chadraker, C.V.Jawahar, "Semantic Segmentation Datasets for Resource Constrained Training", in *IEEE National Confer-*

ence on Computer Vision, Pattern Recognition, Image Processing and Graphics (**NCVPRIPG**), 2019. [pdf]

Sudhir Yarram, Girish Varma, C.V. Jawahar "City-scale Road Audit using Deep Learning", in *IEEE/RSJ International Conference on Intelligent Robots and Systems* (**IROS**), 2018. [pdf]
Finalist for IROS JTCF Novel Technology paper award (certificate)

Awards & Honors

IROS JTCF Novel Technology paper award Runner-up, **IROS**, 2018.
Nominee for Young Achievers Award, **Adobe Systems**, 2016.
Secured 534th rank in All India Engineering Examination (AIEEE) 2011 (>150k applicants)

Professional Services

Conference Reviewing

Computer Vision and Pattern Recognition Conference	2020 - 2023
International conference on computer vision	2021, 2023
European Conference on Computer Vision	2022, 2024

Journal Reviewing

IEEE Transactions on Pattern Analysis and Machine Intelligence	2023

Skills

Python, C, C++, PyTorch